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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,930	01/17/2006	Gerald Josef Reinhard	KBAG-18	2338
53450 7590 03/31/2008 KRIEG DEVAULT LLP ONE INDIANA SQUARE SUITE 2800 INDIANAPOLIS, IN 46204-2079				
EXAMINER				
BANH, DAVID H				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,930

Applicant(s)

REINHARD ET AL.

Examiner

DAVID H. BANH

Art Unit

4193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-27 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- Paper No(s)/Mail Date 1/17/2006

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Stringa (US Patent 5,598,606).

For claim 1: Stringa teaches a device for checking the quality of sheets (column 1, lines 7-10) comprising a first inspection device (column 3, lines 1-2, Figure 1, labels 2 and 4) for detecting image data on a surface of the front side of the sheets, a second inspection device (column 3, lines 1-2, Figure 1, labels 3 and 5) for detecting image data on a surface on the rear side of the sheets, a third inspection device (column 3, lines 1-5, Figure 1, labels 6-7) for illuminating the sheets and an evaluation device (column 3, lines 1-5, labels 1-7 together) for evaluating the quality of the sheets based on the detection result of the inspection devices wherein each inspection device has its own transport drum (column 3, lines 5-15, labels 8-11) for transporting the sheets.

For claim 2: Stringa teaches that the transport drums are arranged one after another in a way such that the sheet after passing over the first drum (column 3, lines 5-25, Figure 1, labels 8-9) or the second drum (column 3, lines 5-25, Figure 1, labels 10-11) is passed directly to the respective downstream drum.

For claim 3: Stringa teaches that the first or second inspection device comprises an image sensor (column 3, lines 1-2, Figure 1, labels 2 and 3) and a light source for inspection by reflection (column 3, lines 1-5, Figure 1, labels 4 and 5).

For claim 4: Stringa teaches an inspection device for detecting the intensity of fluorescence in the transparency and reflectivity of the sheets (column 1, lines 14-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,606) in view of Jeschke (US Patent 4,395,949).

Stringa teaches all of the limitations of claim 6 as found in the parent claim 1. Stringa does not teach that the transport drums are arranged in a pair of side frame panels. However, Jeschke teaches that the transport drums for conveying printed materials are arranged in a pair of side frame panels (column 4, lines 55-59). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the teaching Stringa by mounting the transport drums in a pair of side frame panels as taught by Jeschke for the purpose of ensuring its vertical stability.

5. Claims 7, 11, 14-18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006), in view of Giori (CA 2,407,810).

For claim 7, Stringa teaches all of the limitations of claim 7 as found in the parent claim 1. Stringa does not teach a numbering unit for applying serial numberings to sheets arranged downstream of the inspection device. However, Giori teaches that the numbering unit is arranged downstream of the inspection device (column 11, lines 30-35, column 12, lines 1-10). It would have been obvious to one of ordinary skill in the art to arrange the inspection device downstream of the inspection device for the purpose of using the data from the inspection device to determine which sheets are numbered.

For claim 11, Giori teaches that the number unit only applies the numbering to those sheets which have passed the quality check (column 3, lines 14-18). It would have been obvious to one of ordinary skill in the art to number only the sheets that have passed the quality check for the purpose of being able to count the usable sheets.

For claim 14, Giori teaches that the marking device is arranged downstream of the inspection devices (column 11, lines 30-35, column 12, lines 1-10). It would have been obvious to one of ordinary skill in the art to place the marking device downstream of the inspection device for the purpose of allowing it to receive information from the inspection device on what sheets to mark.

For claim 15, Giori teaches that the sheet is divided into rows and columns (column 3, lines 8-13) and the marking device marks the edge region of the column or row in which the fault is located (column 2, lines 25-30, column 3, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the sheet into rows and column and mark where the fault is located on the

sheet for the purpose of being able to remove a single bad element of the sheet without discarding the remainder of it.

For claim 16, Giori teaches that the sheet is divided into rows and columns (column 3, lines 8-13) and the marking device marks the column and outputs the row in which the fault is located (column 2, lines 25-30, column 3, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the sheet into rows and column and mark where the fault is located on the sheet for the purpose of being able to remove a single bad element of the sheet without discarding the remainder of it.

For claim 17, Giori teaches that the sheet is marked if the quality is deemed to be insufficient (column 3, lines 4-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention taught by Stringa by adding a marker to mark the sheets of insufficient quality for the purpose of being able to easily discard them later.

For claim 18, Giori teaches that the evaluation device is designed to individually determine the quality of individual copies (column 2, lines 22-28) and applying a marking only to or in relation to copies which are deemed unusable (column 3, lines 4-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention taught by Stringa by adding a marker to mark the sheets of insufficient quality for the purpose of being able to easily discard them later.

For claim 21, Giori teaches a device which discharges sheets to at least one stack for sheets which have been deemed of sufficient quality (column 7, lines 1-10)

and at least one stack for sheets that have been deemed to be of insufficient quality (column 2, lines 25-30, column 3, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention taught by Stringa by adding a marker to mark the sheets of insufficient quality for the purpose of being able to easily retain them later.

For claim 22, Stringa teaches a further transport drum arranged downstream of the three transport drums and inspection devices, which transport drum forms a sheet transfer interface (column 3, lines 5-10, Figure 1, labels 13 and 14).

For claims 23, Stringa teaches that the inspection devices and transport drums form an inspection module which can be connected to other modules (column 3, lines 5-10, Figure 1, labels 2, 4-6 and 8-13).

6. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) and Giori (CA 2,407,810) as applied to claim 7 above, and further in view of Schaum (US Patent 5,662,038).

For claim 8: The combination of Stringa and Giori teaches all of the limitations of claim 8 as found in claim 7 above. The combination does not teach a marking unit arranged on the counter-pressure cylinder. However, Schaum teaches a marking unit (column 5, lines 64-66, label 8) arranged on a counter-pressure cylinder (column 5, lines 64-66, label 3) of the numbering unit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Stringa and Giori by placing a marking unit on the counter-pressure cylinder for the purpose of labeling errors on printed sheets that fail to pass inspection.

For claim 10: The combination of Stringa and Giori teaches all of the limitations of claim 8 as found in claim 7 above. The combination does not teach that two numbering units are placed on the counter-pressure cylinder. However, Schaum teaches two numbering units (column 5, lines 64-66, Figure 1, label 8) arranged on a common-counter pressure cylinder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Stringa and Giori by adding multiple numbering units for the purpose of being able to place multiple numbering indicia on the sheets.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006), Schaum (US Patent 5,662,038) and Giori (CA2,407,810) as applied to claim 7 above, and further in view of Omura (US Patent 5,012,932).

The combination of Stringa, Schaum and Giori teaches all of the limitations of claim 9 as found in the parent claim 7. The combination does not teach that the marking device is arranged upstream of the inspection device. However, Omura teaches a marking device that is upstream of an inspection for paper sheets (Figure 18). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Stringa, Schaum and Giori for the purpose of being able to distinguish what defective sheets by serial number.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006), Schaum (US Patent 5,662,038) and Giori (CA2,407,810) as applied to claim 11 above, and further in view of Schenk (US Patent 4,207, 814).

The combination of Stringa, Schaum and Giori teaches all of the limitations of claim 12 as found in the parent claim 11. The combination does not teach that the numbering unit comprises a plurality of digit wheels which are moved to the next position after each printing operation so as to print a changed number in the subsequent printing operation and wherein the motion of the digit wheels is stopped if a sheet is deemed unusable. However, Schenk teaches a digit wheel which are moved into the next position after each printing so as to print a changed number in the subsequent printing operation (column 1, lines 53-60). Giori teaches that the printing and thus digit position changing does not occur for a sheet that is deemed unusable (column 3, lines 14-18). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Stringa, Schaum and Giori by adding the digit wheels taught by Schenk for the purpose of serially printing numbers on acceptable sheets.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006), Schaum (US Patent 5,662,038) and Giori (CA 2,407,810) as applied to claim 7 above, and further in view of Salazar (US Patent 5,130,710).

The combination of Stringa, Schaum and Giori teaches all of the limitations of claim 13 as found in the parent claim 7. The combination does not teach a plurality of digit wheels which are moved to the next position after each printing operation so as to print a changed number in the subsequent printing operation with a device provided for monitoring the motion of the digit wheels and stopping the device if no movement is detected between printing operations. However, Salazar teaches a numbering unit

comprising a plurality of digit wheels which are moved a selected value and provided with a monitor that stops printing if there is no accounting between prints (column 11, lines 50-60). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Stringa, Schaum and Giori by adding the monitored digit wheels of Salazar for the purpose of preventing a damaging mistake in numbering of sheets.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) in view of Scheffer (US Patent 6,349,933).

Stringa teaches all of the limitations of claim 19 as found in the parent claim 1. The combination does not teach a marking device that applies the marking to the horizontal and vertical edge of the sheet. However, Scheffer teaches a marking device that applies the marking to the horizontal and vertical edge of the sheet (column 1, lines 60-67). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Stringa by adding a marking device for marking the edges of the sheets as taught by Scheffer for the purpose of being able to see the markings when the sheets are collated.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) in view of Peeters (US Patent 6,511,149).

Stringa teaches all of the limitations of claim 20 as found in the parent claim 1. Stringa does not teach that a marking device comprising a plurality of ink spray heads. However, Peeters teaches a marking device comprising a plurality of ink spray heads. It would have been obvious to one of ordinary skill in the art the time the invention was

made to modify Stringa by including a marking device for comprising a plurality of ink spray heads as taught by Peeters for the purpose of being able to mark sheets faster.

12. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006), Schaum (US Patent 5,662,038) and Giori (CA 2,407,810) as applied to claim 22 above, and further in view of Compera (US Patent 5,778,783).

The combination of Stringa, Schaum and Giori teaches all of the limitations of claim 24 as found in the parent claim 22. The combination does not teach that the transport drum functions as a counter pressure cylinder. However, Compera teaches a transfer drum that serves as a counter pressure cylinder in a sheet feeding press. It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the transfer drum taught by Stringa, Schaum and Giori as taught by Compera for the purpose of reducing the size of the apparatus and positioning the marking device closer to the inspection device.

13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) in view of Matsunaga (US Patent 6,019,210).

Stringa teaches all of the limitations of claim 25 as found in the parent claim 1. Stringa does not teach that the transfer drum comprises a magnetic field detector. However, Matsunaga teaches a sensor for magnetic fields on a flexible conveyer belt (column 1, lines 20-35). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify Stringa by adding a magnetic sensor as taught by Matsunaga for the purpose of further verifying the sheet material to be inspected as currency.

14. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) in view of Uehara (US PG Publication 2002/0043167).

Stringa teaches the device according to claim 1. It is inherent that the inspection devices which measure the quality of printed sheets be oriented downstream of printing units so located for the purpose of producing said printed sheets. However, as an alternative, Uehara teaches an inspection device together with printing press (Figure 6 and Figure 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate a printing press as taught by Uehara in the inspection device taught by Stringa for the purpose of producing the printed sheets whose quality is checked by the inspection device.

15. Claim 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Stringa (US Patent 5,598,006) and Uehara (US PG Publication 2002/0043167) as applied to claim 26 above, and further in view of D'Heureuse (US Patent 6,318,264B1).

The combination of Stringa and Uehara teaches all of the limitations of claim 27 as found in the parent claim 26. The combination does not teach that the printing unit comprises an inking unit and a form cylinder which is supplied with color by the inking unit. However, D'Heureuse teaches a printing unit comprising an inking unit and a form cylinder which is supplied with ink by the inking unit (column 1, lines 47-60). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of String and Uehara by adding the form cylinder and inking unit for the purpose of providing ink for the printing of the sheets.

Allowable Subject Matter

16. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 5, while Stringa teaches an image sensor and a light source for inspection by transmission on the first and second inspection device and it would have been obvious to one of ordinary skill in the art to modify the invention by placing the image sensor and light source within the third inspection device, no prior art of record or combination thereof teaches a transparent casing for the transport drum for facilitating this inspection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID H. BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-Th 7:30AM-5PM Alt. Fri 7:30AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long T. Nguyen can be reached on 571-272-1753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB

/Long Nguyen/
Supervisory Patent Examiner
Art Unit 4193